



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Yueh Yale Ma et al.

Application No.: 09/467,141

Filed: December 10, 1999

For: DUAL-BIT DOUBLE-
POLYSILICON SOURCE-SIDE
INJECTION FLASH EEPROM CELL

Examiner: E. Lee

Art Unit: 2815

AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

December 20, 2001

Sir:

In response to the Office Action mailed June 20, 2001, for which a three-month extension to reply is enclosed, please amend the above-identified application as follows:

IN THE SPECIFICATION:

On page 2, please replace the paragraph beginning at line 11, with the following rewritten paragraph:

A1
--A structural difference between cells 100 and 150 is that the [triply] triple-polysilicon cell 100 has five operating terminals (select-gate 101, control-gate 102, drain 104, source 105, and substrate 106), while the double-polysilicon cell 150 has four operating terminals (select-gate 151, drain 154, source 155, and substrate 156). Note that drain junction 154 is deeper than source junction 155 to increase floating gate 153 to drain 154 overlap capacitance for improved voltage coupling from the drain to the floating gate. Cell 100 has a channel portion 109.--

On page 2, please replace the paragraph beginning at line 22, with the following rewritten paragraph:

A2
--While the programming mechanisms of cell structures 100 and 150 are similar (e.g., source-side injection, shown by the arrows P in Figs. 1A and 1B), their erase operations differ. In the triple-polysilicon cell 100, during [ease] erase, the electrons are tunneled from floating gate 103 to drain 104 via a thin gate-dielectric 107. This is shown by the arrow E in Fig. 1A. However, in the double-polysilicon cell 150, the electrons are tunneled from floating gate 153 to select-gate 151 via a

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FEE TRANSMITTAL
for FY 2001

JAN 18 2002

Patent fees are subject to annual revision.

TOTAL AMOUNT OF PAYMENT (\$) 538

Complete if Known

Application Number	09/467,141
Filing Date	December 10, 1999
First Named Inventor	Ma, Yueh Yale
Examiner Name	E. Lee
Group Art Unit	2815
Attorney Docket No.	020487-000300US

METHOD OF PAYMENT

- 1.
- ☒
- The Commissioner is hereby authorized to charge indicated fees and credit any over payments to:

Deposit
Account
Number

20-1430

Deposit
Account
Name

Townsend and Townsend and Crew LLP

- ☒
- Charge Any Additional Fee Required
-
- Under 37 CFR 1.16 and 1.17
-
- ☒
- Applicant claims small entity status.
-
- See 37 CFR 1.27

- 2.
- ☐
- Payment Enclosed:

☐ Check ☐ Credit card ☐ Money
Order ☐ Other

FEE CALCULATION

1. BASIC FILING FEE

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
101	740	201	370	Utility filing fee	
106	330	206	165	Design filing fee	
107	510	207	255	Plant filing fee	
108	740	208	370	Reissue filing fee	
114	160	214	80	Provisional filing fee	

SUBTOTAL (1)

(\$)

2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
40	-36**	4	\$9
4	-3**	1	\$42

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description
103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent claim, if not paid
109	84	209	42	** Reissue independent claims over original patent
110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2)

(\$78

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet.	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	460
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,280	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify)

The Commissioner is authorized to charge any additional fees to the above noted Deposit Account.

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

(\$460

SUBMITTED BY

Complete (if applicable)

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Telephone

650-328-2400

Signature

Date

December 20, 2001

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